

## FTSJ2 (T-16): sc-162835

### BACKGROUND

FTSJ2 (putative ribosomal RNA methyltransferase 2, rRNA (uridine-2'-O-)-methyltransferase) is a widely expressed nuclear protein that belongs to the RrmJ family of the methyltransferase superfamily. Methyltransferases are a type of transferase enzyme which transfers a methyl group to nucleic bases in DNA or amino acids in protein. FTSJ2 belongs to a group of evolutionarily conserved S-adenosylmethionine-binding proteins. FTSJ2 shares significant sequence homology with FtsJ/RrmJ, an *Escherichia coli* 23S rRNA uridine-2'-O-methyltransferase. It is likely that FTSJ2 also functions as a nucleolar RNA methyltransferase involved in eukaryotic RNA processing and modification. The gene encoding the FTSJ2 protein is located on chromosome 7p22 between MAD1L1 and NUDT1. FTSJ2 transcripts are abundant in skeletal muscle, placenta, and heart, as well as in cancer cells.

### REFERENCES

1. Scott, H.S., et al. 1998. Identification and characterization of two putative human arginine methyltransferases (HRMT1L1 and HRMT1L2). *Genomics* 48: 330-340.
2. Jin, D.Y., et al. 1999. Mitotic checkpoint locus MAD1L1 maps to human chromosome 7p22 and mouse chromosome 5. *Genomics* 55: 363-364.
3. Caldas, T., et al. 2000. The FtsJ/RrmJ heat shock protein of *Escherichia coli* is a 23 S ribosomal RNA methyltransferase. *J. Biol. Chem.* 275: 16414-16419.
4. Ching, Y.P., et al. 2002. Identification and characterization of FTSJ2, a novel human nucleolar protein homologous to bacterial ribosomal RNA methyltransferase. *Genomics* 79: 2-6.
5. Hager, J., et al. 2002. Active site in RrmJ, a heat shock-induced methyltransferase. *J. Biol. Chem.* 277: 41978-41986.
6. Hager, J., et al. 2004. Substrate binding analysis of the 23S rRNA methyltransferase RrmJ. *J. Bacteriol.* 186: 6634-6642.

### CHROMOSOMAL LOCATION

Genetic locus: FTSJ2 (human) mapping to 7p22.3; Ftsj2 (mouse) mapping to 5 G2.

### SOURCE

FTSJ2 (T-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FTSJ2 of human origin.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-162835 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### APPLICATIONS

FTSJ2 (T-16) is recommended for detection of FTSJ2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with FTSJ1 or FTSJ3.

FTSJ2 (T-16) is also recommended for detection of FTSJ2 in additional species, including equine and porcine.

Suitable for use as control antibody for FTSJ2 siRNA (h): sc-89863, FTSJ2 siRNA (m): sc-145264, FTSJ2 shRNA Plasmid (h): sc-89863-SH, FTSJ2 shRNA Plasmid (m): sc-145264-SH, FTSJ2 shRNA (h) Lentiviral Particles: sc-89863-V and FTSJ2 shRNA (m) Lentiviral Particles: sc-145264-V.

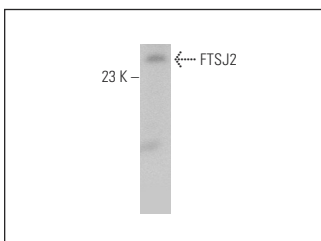
Molecular Weight of FTSJ2: 27 kDa.

Positive Controls: mouse heart extract: sc-2254.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### DATA



FTSJ2 (T-16): sc-162835. Western blot analysis of FTSJ2 expression in mouse heart tissue extract.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.